

NOTODONTIDAE OF EASTERN NEPAL BASED ON THE COLLECTION
OF THE LEPIDOPTEROLOGICAL RESEARCH EXPEDITION TO
NEPAL HIMALAYA BY THE LEPIDOPTEROLOGICAL SOCIETY
OF JAPAN IN 1963 (LEPIDOPTERA)

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A few species of the family Notodontidae based on the collection of Nepal Himalaya-Expedition by the Lepidopterological Society of Japan in 1963 were submitted to me for working out. In this paper, 26 species under 23 genera including 2 new genera, 3 new subgenera and 3 new species are recorded. These were captured at altitudes between 350 m. and 3300 m. and Indo-Malayan species and West-Chinese species are separated from each other an altitude of about 2400 m.

Genus *Stauropus* Germar

Stauropus Germar, 1812, Prodr. Syst. gloss., 2: 45.

Mesostauropus subg. nov.

Type species: *Stauropus sikkimensis* Moore.

Kiriakoff (1968) restricted the genus *Stauropus* to Palaearctic and put in tentatively *sikkimensis* Moore together with other Oriental *Stauropus*-species to the genus *Neostauropus*. However, this species is quite different from *Neostauropus basalis* Moore and others and rather identical with *Stauropus fagi* Linnaeus in many points. Hence a new subgenus *Mesostauropus* is erected for *sikkimensis*.

External features coincide with those of the nominate subgenus but male genitalia differ.

Antennae in male bipectinated but apical one fourth serrated, while in *Neostauropus* one fifth serrated; hind-tibiae with one pair of spurs; forewing with vein M_1 stalked with a common stem of R_2-R_5 , rising from very near upper angle of cell but in *Neostauropus* vein M_1 rising from upper angle of cell.

Male genitalia: socii with a long process in upper portion, projecting apex long and incurved; valvae never thoroughly separating into costal and saccular parts as in *Neostauropus* but forming two projections in distal area while perfectly fused in subgenus *Stauropus*; 8th abdominal sternite tetragonal or pentagonal but never rhombic as in *Neostauropus* and not so long as in the subgenus *Stauropus*, caudal process more feeble, shorter and broader than subgenus *Stauropus*, distal end of cephalic projection never furcate, free slip rail short and arising from center while arising from base of cephalic projection in the subgenus *Stauropus*.

Stauropus (*Mesostauropus*) *sikkimensis* Moore

Stauropus sikkimensis Moore, 1865, Proc. Zool. Soc. Lond., 1865: 811.

Stauropus berberisae Moore, 1888, Proc. Zool. Soc. Lond., 1889: 400.

Palaeostauropus sikkimensis: Kiriakoff, 1967, Gen. Ins., Not. II: 90.

Neostauropus sikkimensis: Kiriakoff, 1968, Gen. Ins., Not. III: 135.

Specimens examined: Chitrei, 2420 m, 28 vi, 3♂♂.

Genus *Netria* Walker

Netria Walker, 1855, List Lep. Het. Brit. Mus., 6: 1504.

Netria viridescens Walker

Netria viridescens Walker, 1855, List Lep. Het. Brit. Mus., 6: 1504.

Stauropus viridescens: Hampson, 1892, Moths Ind., I: 151.

Specimens examined: Chitrei, 2420 m, 28 vi, 1♀.

Genus ***Dudusa*** Walker

Dudusa Walker, 1864, List Lep. Ins. Brit. Mus., 32: 446.

Dudusoides Matsumura, 1929, Ins. Matsu., 4: 80.

Dudusopsis Matsumura, 1929, Ins. Matsu., 4: 81.

Dudusa sphingiformis Moore

Dudusa sphingiformis Moore, 1872, Proc. Zool. Soc. Lond., 1872: 577.

Dudusoides sphingiformis: Matsumura, 1929, Ins. Matsu., 4: 81.

Specimens examined: Kathmandu, vi, 1♂; unnamed place between Tapche and Lelep, 1700 m, 9 vii, 1♂.

Genus ***Damata*** Walker

Damata Walker, 1855, List Lep. Het. Brit. Mus., 5: 1044.

Damata longipennis Walker

Damata longipennis Walker, 1855, List Lep. Het. Brit. Mus. 5: 1044.

Specimens examined: Chitrei, 2420 m, 28 vi, 8♂♂.

Genus ***Rachia*** Moore

Rachia Moore, 1879, Descr. Lep. Atkins.: 70.

Rhachia Gaede, 1934, in Lep. Cat., 59: 190.

Macroschachia Matsumura, 1925, Zool. Mag. Tokyo, 37: 395.

Angustiala Bryk, 1949, Ark. f. Zool., 42A: 3.

Rachia plumosa Moore

Rachia plumosa Moore, 1879, Descr. Lep. Atkins.: 70.

Specimens examined: Walunchung, 3050 m, 27 vii, 1♂.

Genus ***Hupodonta*** Butler

Hupodonta Butler, 1877, Ann. Mag. Nat. Hist., (4) 30: 475.

Hupodonta pulcherrima (Moore)

Pheosia pulcherrima Moore, 1865, Proc. Zool. Soc. Lond., 1865: 814.

Hupodonta pulcherrima: Gaede, 1930, in Seitz, Macrolep. World, 10: 638.

Specimens examined: Unnamed place between Walunchung and Chowki, 2450 m, 28 vii, 2♂♂.

Genus ***Allodonta*** Staudinger

Notodonta (*Allodonta*) Staudinger, 1887, Mém. Rom., 3: 223.

Allodonta Kirby, 1892, Syn. Cat. Lep. Het.: 604.

Hexafrenum Matsumura, 1925, Zool. Mag. Tokyo, 37: 400.

Allodonta* (*Allodonta*) *collaris (Swinhoe)

Notodonta collaris Swinhoe, 1904, Ann. Mag. Nat. Hist., (7) 14: 321.

Allodonta collaris: Kiriakoff, 1968, Gen. Ins., Not. II: 185.

Specimens examined: Chitrei, 2420 m, 28 vi, 1♂.

Kiriakoffia subg. nov.

Type species: *Allodonta longivitta* Gaede.

Differs from the nominate subgenus in the following points: antennae ciliated; forewing with vein M_3 and Cu_1 separated but more approximated than in the subgenus *Allodonta*, vein M_1 rising from upper angle of cell; hindwing with R_s and M_1 stalked, and the common stem longer than in the subgenus *Allodonta*. Male genitalia: uncus and socii not so acute at termen as those of the subgenus *Allodonta*; valvae with costal process of distal end not so developed and posterior process very long; juxta simple; aedoeagus never prolonged at tip; 8th abdominal sternite trapezoidal and narrowly rifted at medio-caudal end, sclerotized caudal fold very broad; 8th abdominal tergite with caudal margin deeply incised W-like.

Allodonta* (*Kiriakoffia*) *longivitta Gaede

Allodonta longivitta Gaede, 1930, in Seitz, Macrolep. World, 10: 643.

Specimens examined: Chitrei, 2420 m, 28 vi, 1♂, 1♀; unnamed place between Lhawn Pokn and Chitrei, 2700 m, 30 vi, 2♂♂, 1♀.

Genus ***Peridea*** Stephens

Peridea Stephens, 1828, I11. Brit. Ent. Haust., 2: 31.

Mesodonta Matsumura, 1920, Zool. Mag. Tokyo, 32: 145.

Peridea* (*Peridea*) *sikkima (Moore)

Notodonta sikkima Moore, 1879, Descr. Lep. Atkins.: 67.

Notodonta moorei Hampson, 1892, Moths Ind., I: 163.

Mesodonta moorei: Matsumura, 1931, 6000 I11. Ins. Jap.: 647.

Peridea moorei: Kiriakoff, 1959, Ark. f. Zool., (2) 12: 329.

Specimens examined: Chitrei, 2420 m, 28 vi, 3♂♂.

Genus ***Acmeshachia*** Matsumura

Acmeshachia Matsumura, 1929, Ins. Matsu., 4: 39.

Oreodonta Kiriakoff, 1967, Tijdschr. Ent., 110: 54.

Acmeshachia* *gigantea (Elwes)

Notodonta gigantea Elwes, 1890, Proc. Zool. Soc. Lond., 1890: 399.

Notodonta elwesii Kirby, 1892, Syn. Cat. Lep. Het.: 600.

Acmeshachia gigantea: Kiriakoff, 1968, Gen. Ins., Not. II: 175.

Specimens examined: Unnamed place between Tapche and Lelep, 1700 m, 9 vii, 1♀.

Acmeshachia albifascia (Moore)*Pheosia albifascia* Moore, 1879, Descr. Lep. Atkins.: 69.*Notodonta albifascia*: Hampson, 1892, Moths Ind., I: 162.*Acmeshachia albifascia*: Kiriakoff, 1968, Gen. Ins., Not. III: 175.

Specimens examined: Chitrei, 2420 m, 28 vi, 3♂♂; unnamed place between Tapche and Lelep, 1700 m, 9 vii, 1♀.

Genus ***Neopheosia*** Matsumura*Neopheosia* Matsumura, 1920, Zool. Mag. Tokyo, 32: 147.***Neopheosia fasciata*** (Moore)*Pheosia fasciata* Moore, 1888, Proc. Zool. Soc. Lond., 1888: 401.*Neopheosia fasciata*: Matsumura, 1920, Zool. Mag. Tokyo, 32: 147.

Specimens examined: Data missing, 1♂, 1♀.

Genus ***Suzukia*** Matsumura*Suzukia* Matsumura, 1920, Zool. Mag. Tokyo, 32: 140.***Suzukia (Suzukia) sikkima*** (Moore)*Heterocampa sikkima* Moore, 1865, Proc. Zool. Soc. Lond., 1865: 812.*Notodonta sikkima*: Hampson, 1892, Moths Ind., I: 163.*Peridea sikkima*: Kiriakoff, 1959, Ark. f. Zool., (2) 12: 392.*Suzukia sikkima*: Kiriakoff, 1968, Gen. Ins., Not. III: 181.

Specimens examined: Unnamed place between Lhawn Pokn and Chitrei, 2800 m, 30 vi, 1♂.

Genus ***Pseudofentonia*** Strand*Pseudofentonia* Strand, 1912, Fauna Exot., 2: 40.***Pseudofentonia (Pseudofentonia) argentifera*** (Moore)*Heterocampa argentifera* Moore, 1865, Proc. Zool. Soc. Lond., 1865: 813.*Phalera argentifera*: Kirby, 1892, Syn. Cat. Lep. Het.: 577.*Fentonia argentifera*: Hampson, 1892, Moths Ind., I: 147.*Pseudofentonia argentifera*: Strand, 1912, Fauna Exot., 2: 40.

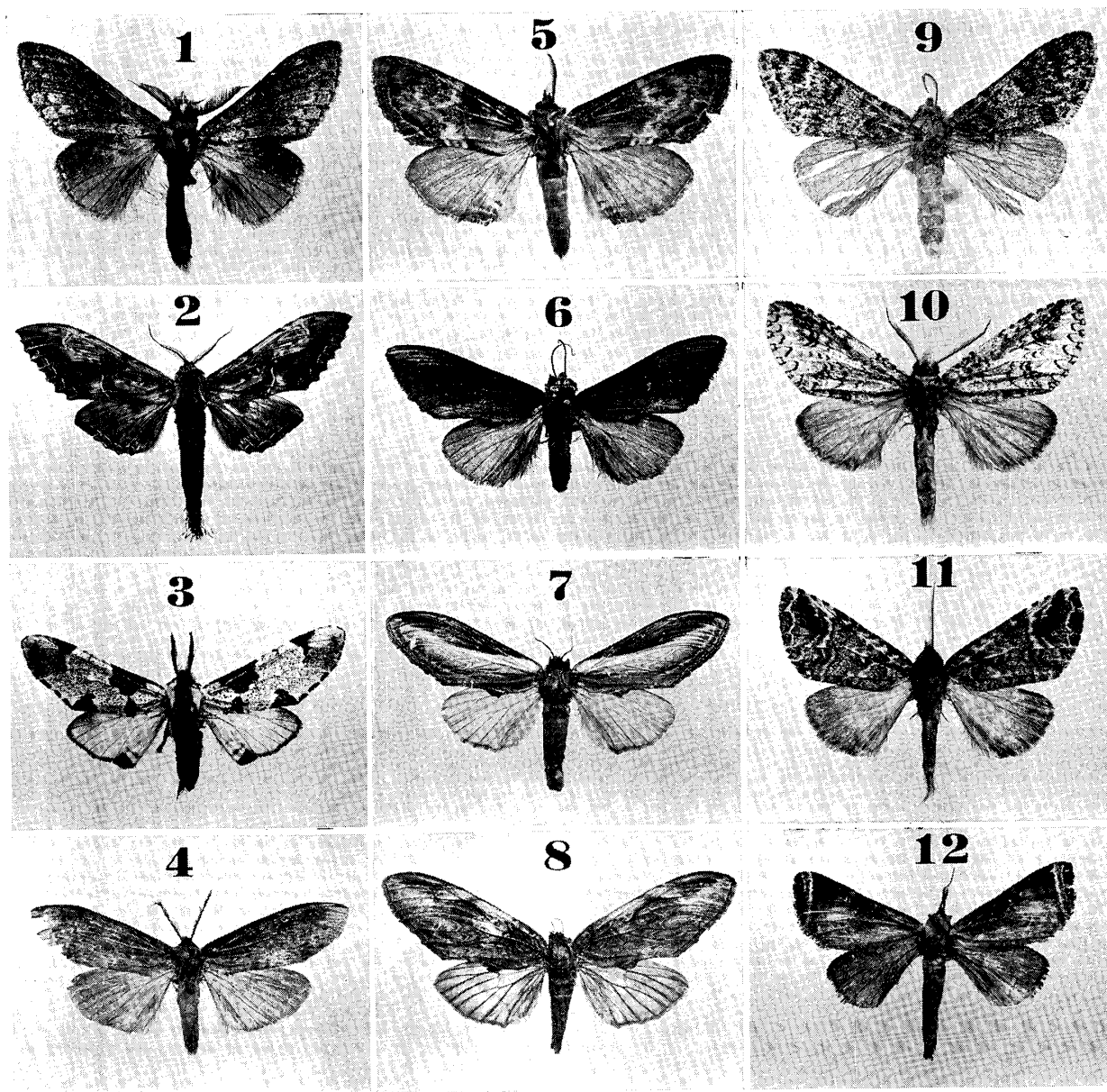
Specimens examined: Chitrei, 2420 m, 28 vii, 13♂♂, 1♀.

Viridifentonia gen. nov.

Type species: *Heterocampa plagiviridis* Moore.

Plagiviridis Moore had been placed by Gaede in the genus *Epistauropus*, but the species has referred to the genus *Mesophalera* by Kiriakoff (1968). The venation of *Mesophalera* coincides with that of *Epistauropus* in the forewing with veins M_3 and Cu_1 well separated, vein M_2 from the middle of discocellular, vein M_1 from the upper angle of cell, but differs in the forewing without the areole and the hindwing with veins R_s and M_1 moderately long stalked.

Plagiviridis, however, differs from the above two genera in the forewing with veins M_3 and Cu_1 approximated and vein M_2 rising from upper one third of discocellular and from *Epistaupus* in the forewing without areole and in the hindwing with veins R_s and M_1 moderately long stalked. In *Mesophalera* and its allied genera, *Pantherinus* is near to but differs from *plagiviridis* in the forewing with vein M_2 arising from just below of the upper angle of cell and in the hindwing with veins R_s and M_1 moderately short stalked. *Libido* and *Pellewia* could not fully be compared with *plagiviridis* as they have not been examined by me but based on the original description, the former venation probably resembles that of *Pantherinus* and the latter may coincide with *Epistaupus* excepting the presence of areole. The antennae of the male are serrated in *Pellewia*, weakly pectinated in *Mesophalera* and *Pantherinus* but strongly pectinated in *Libido*, *Epistaupus* and *plagiviridis*. The male genitalia of *Pellewia*, *Libido*, *Mesophalera*, *Pantherinus* and *plagiviridis* are closely allied to each other in the bifurcated uncus and others but those



Figs. 1-12. Notodontidae: (1) *Stauropus* (*Mesostauropus*) *sikkimensis* Moore, ♂; (2) *Dudusa sphingiformis* Moore, ♂; (3) *Damata longipennis* Walker, ♂; (4) *Rachia plumosa* Moore, ♂; (5) *Hypodonta pulcherrima* Moore, ♂; (6) *Allodonta* (*Kiriakoffia*) *longivitta* Gaede, ♂; (7) *Acmeshachia albifascia* Moore, ♂; (8) *Acmeshachia gigantea* Elwes, ♀; (9) *Suzukia* (*Suzukia*) *sikkima* Moore, ♂; (10) *Pseudofentonia* (*Pseudofentonia*) *argentiifera* Moore, ♂; (11) *Viridifentonia plagiviridis* Moore, ♂; (12) *Nepalia vespertalis* sp. nov., ♂.

of *Epistauropus* are considerably different. The adequate classification of this group is almost impossible at present, but if it is recognized that *Pellewia*, *Libido*, *Mesophalera* and *Pantherinus* are the separable genera, then a new genus must be erected to *plagiviridis*. This new genus agrees with the subgenus of *Pseudofentonia* in the antennae, the palpi, the wing shape and the venation but distinctly differs in the male genitalia.

***Viridifentonia plagiviridis* (Moore)**

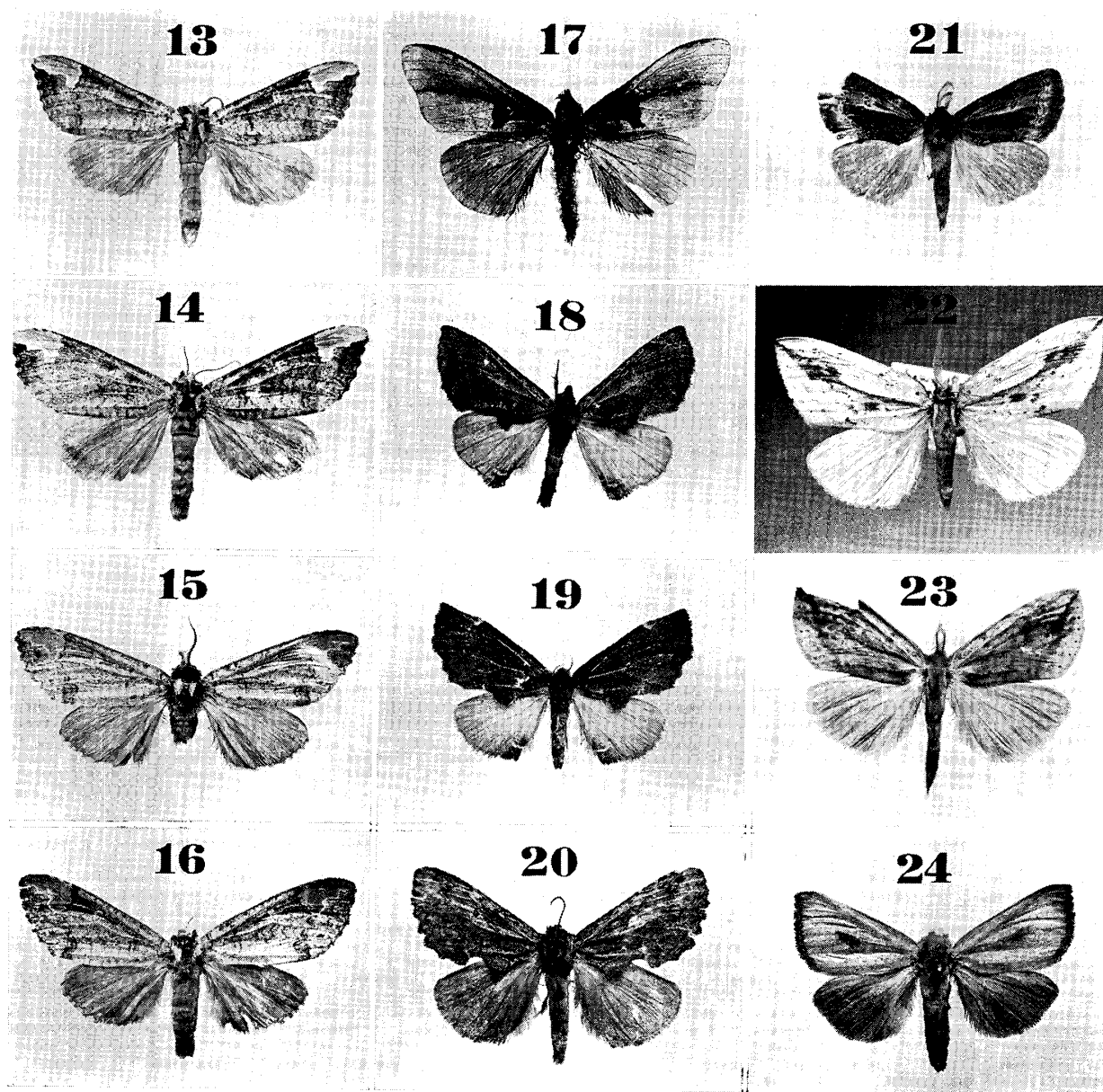
Heterocampa plagiviridis Moore, 1879, Descr. Atkins.: 61.

Stauropus plagiviridis: Hampson, 1892, Moths Ind., I: 153.

Epistauropus plagiviridis: Gaede, 1930, in Seitz, Macrolep. World, 10: 625.

Mesophalera plagivirides (sic): Kiriakoff, 1968, Gen. Ins., Not. III: 58.

Specimens examined: Unnamed place between Lhawn Pokn and Chitrei, 2800 m, 1 vii, 2♂♂.



Figs. 13–24. Notodontidae: (13) *Phalera himalayana* sp. nov., ♂; (14) do., ♀; (15) *Phalera alaya* sp. nov. ♂; (16) do., ♀; (17) *Pseudonerice unidentata* Bryk, ♂; (18) *Ptilodon atrofusa* Hampson, ♂; (19) *Ptilodontosia crenulata* Hampson, ♂; (20) *Spatalina ferruginosa* Moore, ♂; (21) *Cleapa latifascia* Walker, ♂; (22) *Biraia junctura* Moore, ♂; (23) *Besaia* (*Besaia*) *tamurensis* sp. nov., ♂; (24) *Antheua servula* Drury, ♂.

***Nepalia* gen. nov.**

Type species: *Nepalia vesperalis* sp. nov.

♂. Eyes naked; antennae shortly pectinated but one third at apex ciliated; palpi short porrect, 3rd segment small and obtuse; hindtibiae with two pairs of spurs; abdomen long and extended beyond hindwing; forewing narrow and not so acuted at apex, termen slightly angled inward at vein Cu₁, tuft of scales on inner margin minute; vein Cu₂ arising from median vein near vein Cu₁ but away twice length between veins M₃-Cu₁; veins M₃ and Cu₁ separated; vein M₃ curved; vein M₂ from one fourth upper of discocellular; discocellular concave between veins M₂ and M₃; vein M₁ short stalked with a common stem of R₂-R₅; vein R₂ stalked just before vein R₅; hindwing with veins Cu₁ and M₃ approximated; vein M₂ from one third of upper angle of cell; veins M₁ and R₅ short stalked.

Male genitalia: uncus short and shallowly concave at apex; socii larger than uncus, beaked and pointed at tip, termen with long brushing hairs at shoulder; valvae rather narrow and membranous, costa consisting of a large and a small heavily sclerotized projections, small projection at base triangular and large one bifurcated, distal piece obtuse at apex and basal piece bent and pointed at tip; aedoeagus long, with two small spinerous side projections; five needle-like cornuti.

This is a unique genus and somewhat related to *Viridifentonia* Nakamura but very different in the male genitalia.

***Nepalia vesperalis* sp. nov.**

Related to *Epistauropus apiculatus* Rothschild from Assam, Malaya, Borneo, Java and Sumatra but whitish fascia near apex of forewing slenderer and not so strongly curved.

♂. Exp. 40 mm. Antennae brown, head and patagia blackish brown; tegula, thorax and abdomen greyish brown. Forewing narrow and ochraceous brown, with area enclosed by inner margin, submedian fold and discocellular and outer area of line running between apical one fourth of costal margin and distal end of vein Cu₂ blackish brown mingled with leaden scales; subbasal, antemedian and postmedian lines black, disconnected and indefinite; in upper area of submedian fold, in cell A and in cell Cu₂, one grey inside fascia and two outside fascia accompanying post median line; testaceous dentate fascia along inside of blackish brown apical shade; testaceous band bordered both sides with whitish tint running almost straight from just before apex to distal end of vein Cu₁; fringe blackish brown. Hindwing greyish brown; fringe concolorous. Undersurface: forewing greyish brown but dark brown in discoidal cell and outer area; whitish brown fascia from costal margin to vein M₁ near termen; three minute whitish brown patches bordered with testaceous tint on costa; fringe blackish brown; hindwing yellowish brown; fringe blackish brown.

Male genitalia: described under the generic diagnosis.

Holotype: ♂, 30 vi 1963, unnamed place between Lhawn Pokn and Chitrei, 2700 m (in coll. Nakamura).

Paratype: ♂, data same as the holotype (in coll. Nakamura).

Distribution: Nepal.

Genus *Pseudonerice* Bryk

Pseudonerice Bryk, 1949, Ark. f. Zool., 42A: 40.

***Pseudonerice unidentata* Bryk**

Pseudonerice unidentata Bryk, 1949, Ark. f. Zool., 42A: 40.

Unrecorded from Nepal.

Specimens examined: Unnamed place between Lhawn Pokn and Chitrei, 2700 m, 30 vi, 3♂♂.

Genus *Antheua* Walker

Antheua Walker, 1855, List Lep. Het. Brit. Mus., 3: 687.

Zana Walker, 1855, List Lep. Het. Brit. Mus., 7: 1700.

Antheua servula (Drury)

Noctua servula Drury, 1773, Ins. Exot., 2: 20.

Odonestis servula: Westwood, 1837, Drury 2nd ed.: 22.

Antheua servula: Swinhoe, 1890, Trans. Ent. Soc. Lond., 1890: 189.

Antheua discalis Walker, 1855, List Lep. Het. Brit. Mus., 3: 767.

Antheua exanthemata Moore, 1883, Lep. Ceylon, 3: 111.

Antheua obscura v. Eecke, 1929, Zool. Mededeel., 12: 162.

Specimens examined: Tombol Bridge, 350 m, 25 vi, 1♀; Unnamed place between Mure and Dhankuta, 6 viii, 1♀; unnamed place between Dhankuta and Darapani, 7 viii, 1♂; Dharan, 600 m, 9 viii, 5♀♀.

Genus ***Phalera*** Hübner

Phalera Hübner, 1819, Verz. bek. Schmett., 10: 147.

Phaleromimus Bryk, 1949, Ark. f. Zool., 42A: 9.

Phalera alaya sp. nov.

♂. Exp. 69 mm., ♀ exp. 78 mm. Closely related to *Phalera javana* Moore from Java and Sumatra but larger. Head and patagia deeper than that of *javana*; abdomen of male lighter than that of *javana* and similar to the following species but that of female dark brown chequed with pale yellow band; forewing silvery brown with lustrous yellow and suffused with pale pinkish tint in inner area especially in female; black subbasal and antemedian lines distinct; five black undulated lines between ante- and postmedian lines barely distinct compared with those of *javana*; discocellular spot somewhat more distinct than in *javana* and orbicular stigma visible; black lunulate double postmedian line more strongly curved inwards in cell 1A than that of *javana*, darker spot attached outside of postmedian line at inner margin; apical patch same as in *javana* in shape but never pointed on vein M_2 (while pointed in *javana*), indented at black inner margin and reaching vein M_3 at lower end which is geniculated and never pointed as in *javana*, dark ochraceous bordered by fine pale yellow line at outer margin; submarginal black spotted line more distinct than that of *javana*, attached dark ochraceous spots in cells M_1 - Cu_1 ; fringe same as in *javana*, viz. outer half chestnut brown and basal half buff but at end of veins only tinted by chestnut brown; hindwing dark brown without median band while in *javana* visible paler median band; fringe white chequered with chestnut brown at end of veins. Undersurface: forewing testaceous but lighter than in *javana*, with lighter submarginal band bordered outside by blackish brown arrow-headed line and attached inside blackish brown spotted line, apical area lighter; fringe same as uppersurface; hindwing paler than forewing without median band; fringe same as uppersurface.

Male genitalia: rather resembling those of *raya* Moore; uncus longer-typed, latero-basal margin more produced than in *raya*; socii more or less larger, longitudinal, with a protuberance at lower angle, strongly indented at margin; valvae similar to those of *javana*, with two terminal processes of ampulla transverse, end of cucullus produced, pad small; juxta as in *raya* but never rugous; 8th abdominal sternite same as in *javana*, but median tubercle more developing and cephalo-lateral process slightly shorter; 8th abdominal tergite similar to that of *javana*.

In forewing venation, vein R_2 from apex of areole in this species, while vein R_2 diverging from a common stem of R_3 - R_4 in *javana*.

Holotype: 1♂, 8 vii 1963, unnamed place between Lelep and Andewa, ca 1500 m (in coll. Nakamura).

Paratype: 1♀, 17 viii 1963, Kathmandu, 1600 m (in coll. Nakamura).

Distribution: Nepal.

Phalera himalayana sp. nov.

♂. Exp. 62-67 mm., ♀ exp. 71-79 mm. Closely allied to *Phalera raya* Moore from Sikkim, India, Indonesia and southern China but larger; tegula and thorax mingled more densely with black hairs; abdomen ochraceous on upperside and whitish (male) or mingled blackish brown (female) on underside but never chequed with pale yellow band as in *alaya* Nakamura; forewing dark silvery, more suffused with brownish scales and less lustrous than in *raya*; basal area strongly tinted with silvery white scales and submarginal area silvery but inner area scarcely suffused with silvery scales (in *raya* silvery on inner area); black subbasal and antemedian lines distinct; black

lunulate double postmedian line; five undulated black lines between ante- and postmedian lines somewhat more obscure than in *raya*; discocellular spot distinct and forming white reniform ring in many individuals; orbicular stigma invisible; apical patch same as in *raya* in shape, more or less weakly indented at black inner margin and never reaching vein M_3 at lower end which is abrupted, pale buff but suffused with pale ochraceous tint in most parts of central area (ochraceous tint darker in *raya*); submarginal black fascia indefinite but never forming spotted line as in *raya*; fringe same as in *raya* and *alaya*; hindwing dark brown but paler in marginal area and with indistinct paler median band in some individuals while in *raya* uniform blackish brown; fringe whitish yellow chequered with chestnut brown at end of veins. Undersurface: forewing greyish brown (male) or testaceous (female) with blackish brown shade over submarginal area; apical patch pale yellow; marginal lunulate blackish brown line restricted inside by whitish band in many individuals; fringe same as uppersurface; hindwing whitish (male) or testaceous (female) with greyish brown median band; fine chestnut brown marginal line; fringe same as uppersurface.

Male genitalia: uncus longer-typed, latero-basal margin same as in *raya*; socii transverse, strongly indented at margin; valvae with two terminal processes of ampulla longitudinal, end of cucullus scarcely produced, pad more developed than in *alaya*; juxta quadrate, slightly concave at median edge, rugous; 8th abdominal sternite same as in *raya*, but median tubercle more developing and cephalo-lateral process slightly longer; 8th abdominal tergite similar to that of *raya*.

Forewing venation of this species is unstable as illustrated in fig. 25. *Himalayana* is also related to *minor* Nagano from Japan but easily distinguished by colour of inner margin of apical patch of forewing.

Holotype: ♂, 28 vi 1963, Chitrei, 2420 m (in coll. Nakamura). Paratypes: 5♂♂, data same as holotype; 1♀, 10 vii 1963, Tapche, 2400 m; 1♀, 28 vii 1963, unnamed place between Walunchung and Chowki, 2450 m (in coll. Nakamura).

Distribution: Nepal.

Genus *Ptilodon* Hübner

Ptilodon Hübner, 1822, Syst. -alph. Verz., 14: 15.

Lophopteryx Stephens, 1828, Ill. Brit. Ent. Haust., 2: 26.

Ptilodon atrofusa (Hampson)

Lophopteryx atrofusa Hampson, 1892, Moths Ind., I: 166.

Ptilodon atrofusa: Kiriakoff, 1968, Gen. Ins., Not. III: 232.

Specimens examined: Unnamed place between Walunchung and Chowki, 2540 m, 28 vii, 2♂♂.

Genus *Ptilodontosia* Kiriakoff

Ptilodontosia Kiriakoff, 1968, Gen. Ins., Not. III: 232.

Ptilodontosia crenulata (Hampson)

Lophopteryx crenulata Hampson, 1896, Moths Ind., IV: 460.

Ptilodontosia crenulata: Kiriakoff, 1968, Gen. Ins., Not. III: 233.

Specimens examined: Walunchung, 3050 m, 27 vii, 2♂♂; unnamed place between Yangma and Nup, 3310 m, 25 vii, 2♀♀.

Genus *Spatalina* Bryk

Spatalina Bryk, 1949, Ark. f. Zool., 42A: 34.

Xeropteryx Kiriakoff, 1963, Bonn. Zool. Beitr., 14: 289.

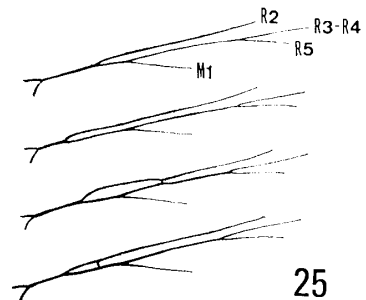


Fig. 25. Variation of the forewing venation of *Phalera himalayana* sp. nov.

Spatalina ferruginosa (Moore)*Lophopteryx ferruginosa* Moore, 1879, Descr. Lep. Atkins.: 67.*Spatalina ferruginosa*: Kiriakoff, 1968, Gen. Ins., Not. III: 234.

Specimens examined: Tapche, 2400 m, 10 vii, 2♂♂, 2♀♀.

Genus ***Cleapa*** Walker*Cleapa* Walker, 1855, List Lep. Ins. Brit. Mus., 5: 1037.*Marushachia* Matsumura, 1934, Ins. Matsu., 8: 154.***Cleapa latifascia*** Walker*Cleapa latifascia* Walker, 1855, List Lep. Ins. Brit. Mus., 5: 1037.

Specimen examined: Unnamed place between Lelep and Tapche, 1700 m, 9 vii, 1♂.

Genus ***Biraia*** Kiriakoff*Bireta* (*Biraia*) Kiriakoff, 1962, Bull. Ann. Soc. Ent. Belg., 98: 174.*Biraia* Kiriakoff, 1968, Gen. Ins., Not. III: 75.Type species: *Biraia junctura* Moore = *Biraia postica*: Kiriakoff (erroneously based upon male genitalia, nec Moore).

There is a striking confusion among some species in connection with "*Ceira*" *junctura* Moore. Kiriakoff has established the subgenus *Biraia* for "*Ceira*" *postica* Moore based on the diagnosis of male genitalia only. *Postica* is the species with ciliated male antennae and rather slender forewing as was also pointed out by Gaede (1930) and by Kiriakoff. However, the male genitalia extracted from the specimen of Himalayan *junctura* Moore and recorded in this paper unexpectedly coincided with those of *postica* which were illustrated by Kiriakoff. This *junctura* Moore is similar to *postica* but the male antennae are bipectinated and the forewing rather deltoid according to the photograph of the type specimen shown by Kiriakoff. It is presumed from this fact that Kiriakoff mistook the genitalia of *junctura* for that of *postica*; then the type species of the genus *Biraia* must be selected *junctura* Moore. The re-description of *Biraia* is as follows:

Proboscis vestigial; palpi relatively stout, squamous, upturned and reaching vertex of head, 3rd segment minute and somewhat acute; antennae long pectinated; abdomen extending just beyond hindwing. Forewing broad, triangular, pointed at apex, termen straight, hind angle angulated; areole very slender; vein R_2 diverging from R_3 - R_4 connate near apex of areole; veins R_2 - R_4 and R_5 arising from apex of areole; vein M_1 from upper angle of cell; vein M_2 from just below middle of discocellular; discocellular slightly concave; veins M_3 and Cu_1 well separated; hindwing with veins Rs - M_1 very short stalked (1/15 length of each veins).

Male genitalia: uncus very short, bending downward, apex rounded; socii minute, bent adversely, apex lip-like, with a long under process from near base; valvae rather thin, simple; aedoeagus relatively short, bent acutely near tip; 8th abdominal sternite octagonal, cephalic margin slightly concave, with π -like appendix in meson which is free towards distal end; 8th abdominal tergite pentagonal, slightly incised at caudal portion.

Related to *Torigea* Matsumura but differs in vein R_2 of forewing, veins Rs - M_1 of hindwing and male genitalia.

Biraia junctura (Moore)*Ceira junctura* Moore, 1879, Descr. Lep. Atkins.: 65.*Pydna junctura* Gaede, 1930, in Seitz, Macrolep. World, 10: 623, t. 82e.*Ceira junctura*: Kiriakoff, 1962, Bull. Ann. Soc. Ent. Belg., 98: t. 4.*Bireta* (*Biraia*) *postica*.: Kiriakoff, 1962, (nec Moore), ib., 98: 174.*Biraia postica*: Kiriakoff, 1968, (nec Moore), Gen. Ins., Not. III: 75.? *Rilia ferrifera* Walker, 1855, List Lep. Ins. Brit. Mus., 5: 1076.? *Torona ferrifera*: Walker, 1865, List Lep. Ins. Brit. Mus., 32: 468.

Pydna ferrifera: Hampson, 1892, (part, nec Walker), Moths Ind., I: 142.

Pydna adjutrea Schaus, 1928, Proc. U. S. Nat. Mus., 73: 85.

Specimen examined: Unnamed place between Lhawn Pokn and Chitrei, 2800 m, 30 vi, 1♂.

Genus *Besaia* Walker

Besaia Walker, 1865, List Lep. Ins. Brit. Mus., 32: 458.

Among the species of *Besaia* Walker sensu Kiriakoff (1962), *basistriga* Moore is the species belonging to the subgenus *Curuzza* Kiriakoff (**comb. nov.**), *goddrica* Schaus probably belongs to a different genus and *sordida* Wileman, *nebulosa* Wileman and *dives* Kiriakoff are included in the new subgenus *Kuohsingia*. Then, the species belonging to *Besaia* (*Besaia*) are *rubiginosa* Walker, *prominens* Bryk, *malaisei* Kiriakoff, *mediodivisa* Bryk, *yunnana* Kiriakoff and *tamurensis* sp. nov.

Kuohsingia subg. nov.

Type species: *Besaia nebulosa* Wileman.

External features same as those of *Besaia* (*Besaia*) excepting slightly narrow forewing. Male genitalia: uncus bifid in terminal area; valvae with marginal edge of sacculus; 8th abdominal sternite without medio-caudal process.

Subgenus *Besaia* Walker

Besaia (*Besaia*) *tamurensis* sp. nov.

Allied to *Besaia* (*Curuzza*) *basistriga* Moore from Sikkim but differing in the male genitalia.

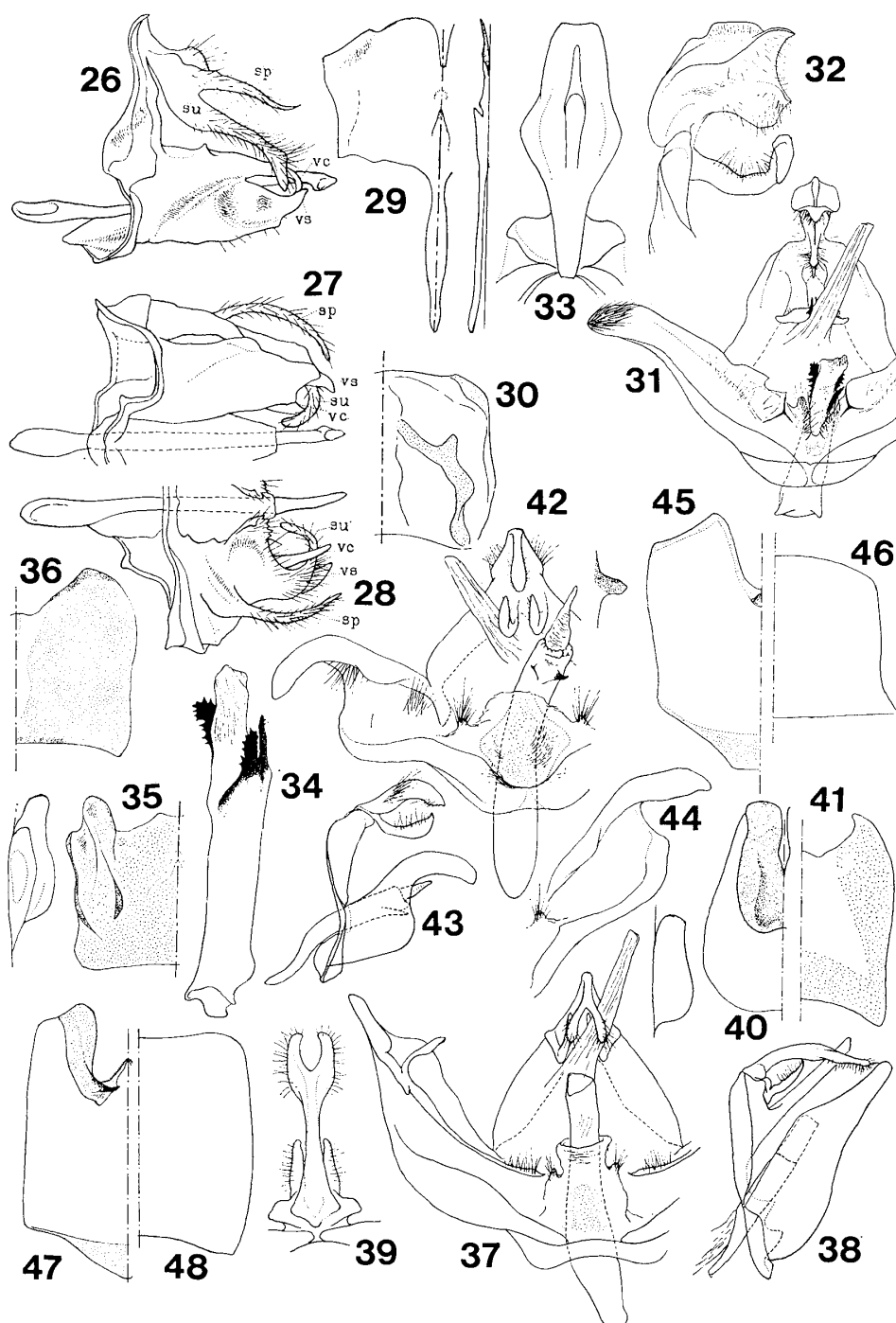
♂. Exp. 40-43 mm. Antennae serrate and fasciculate, shaft brown; palpi upturned, 1st and 2nd segments heavily fringed with dark brown hairs; head and thorax fusco-testaceous; abdomen relatively long, greyish ochraceous but brownish yellow in underside and anal tuft. Forewing broad, nearly triangular, apex somewhat acute, termen rounded; ground colour ochraceous, darker in area restricted by inner margin, median vein and postmedian line, black scales scattered in costal area; two black basal patches; antemedian fuscous dotted line on costal margin and veins; reniform stigma somewhat paler, elliptical; fuscous serrated median shade obliquely outward from costal margin and vertical along outside of reniform stigma to origin of veins M_2 and M_3 , then obliquely inward to near middle of inner margin; postmedian fuscous dotted double line parallel to median shade; marginal line black, very fine and black patches attached inside in cells; fusco-testaceous shade running obliquely from apex to outer line on vein Cu_1 and black speck in shade in cell M_3 ; leaden tint on median vein and on basal half of vein 1A; fringe ochraceous. Hindwing greyish brown with marginal line very fine, darker; fringe ochraceous. Undersurface blackish ochraceous but paler in hindwing; costal area of forewing reddish; fringe ochraceous.

Male genitalia: uncus beak-like, distal end abrupted, basal area wide and bearing numerous hairs inside; socii narrow, apical portion distorted outwards and expanded fan-like, with a slender process bent outwards and abrupted at apex; aedoeagus very short, with a terminal fine and curved side process; 8th abdominal sternite pentagonal, heavily sclerotized furcate short process at medio-caudal corner, a pair sclerotized protrusion in central area.

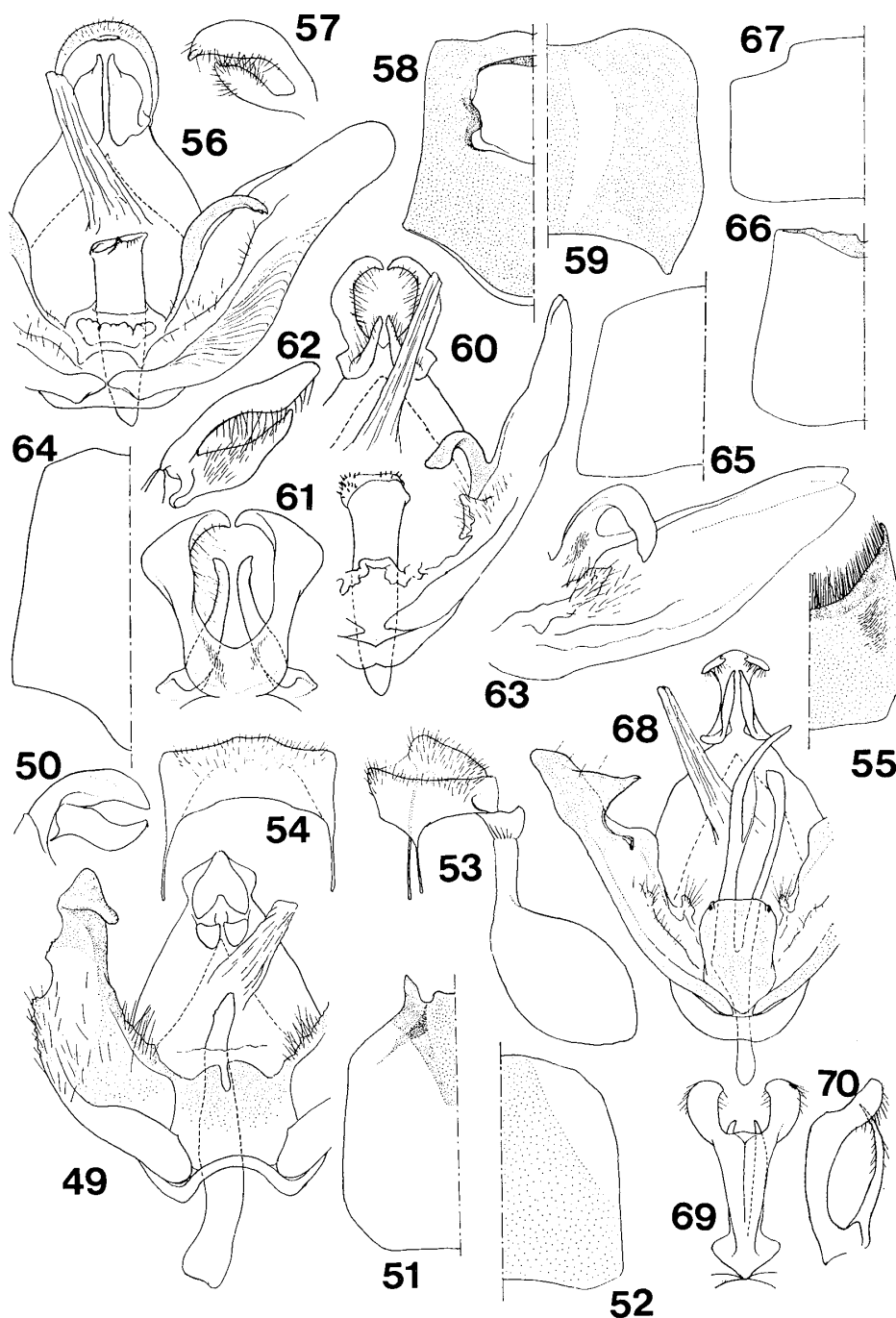
Holotype: ♂, 28 vii 1963, unnamed place between Walunchung and Chowki, 2450 m (in coll. Nakamura).

Paratypes: 9♂♂, data same as the holotype (in coll. Nakamura).

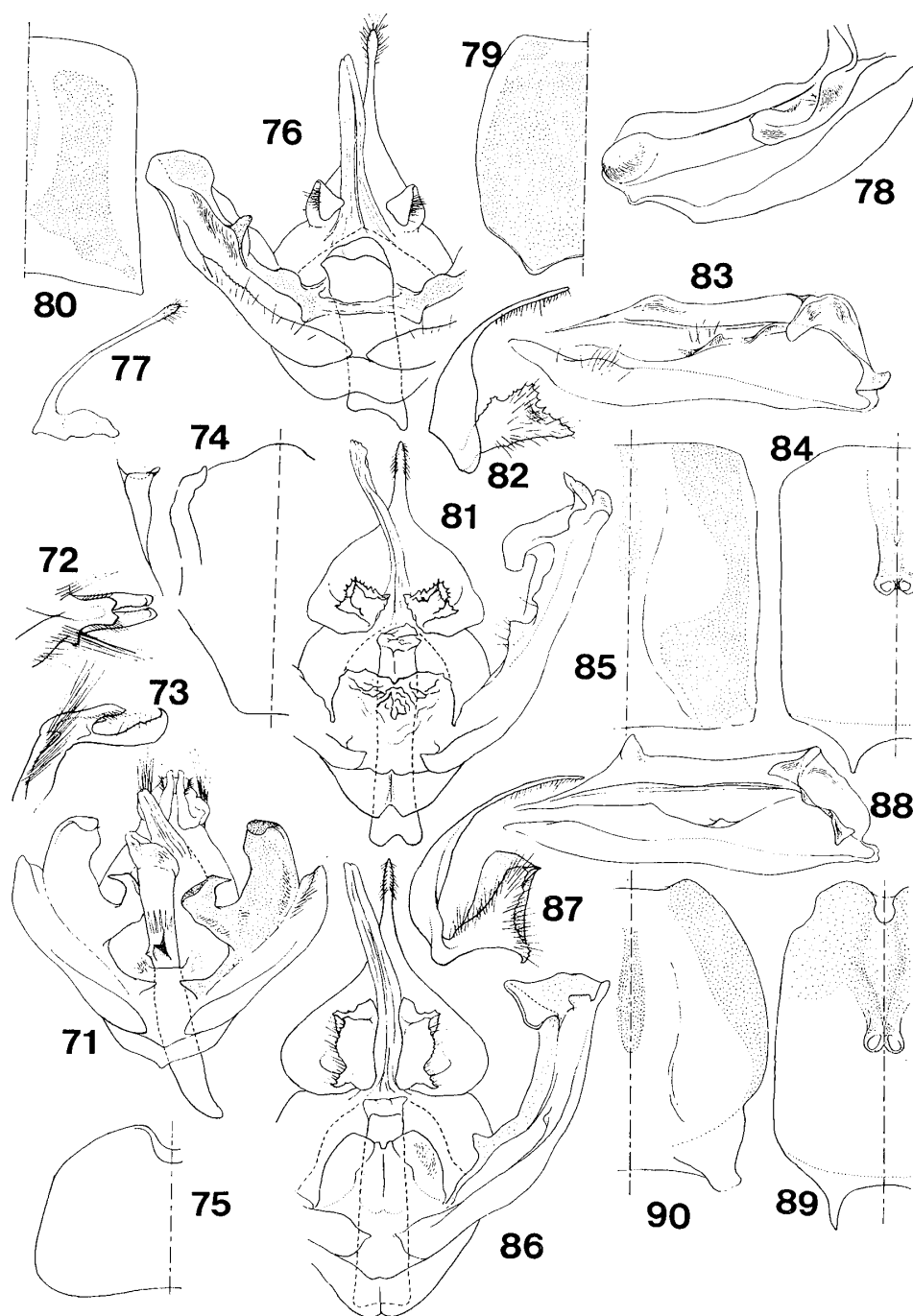
Distribution: Nepal.



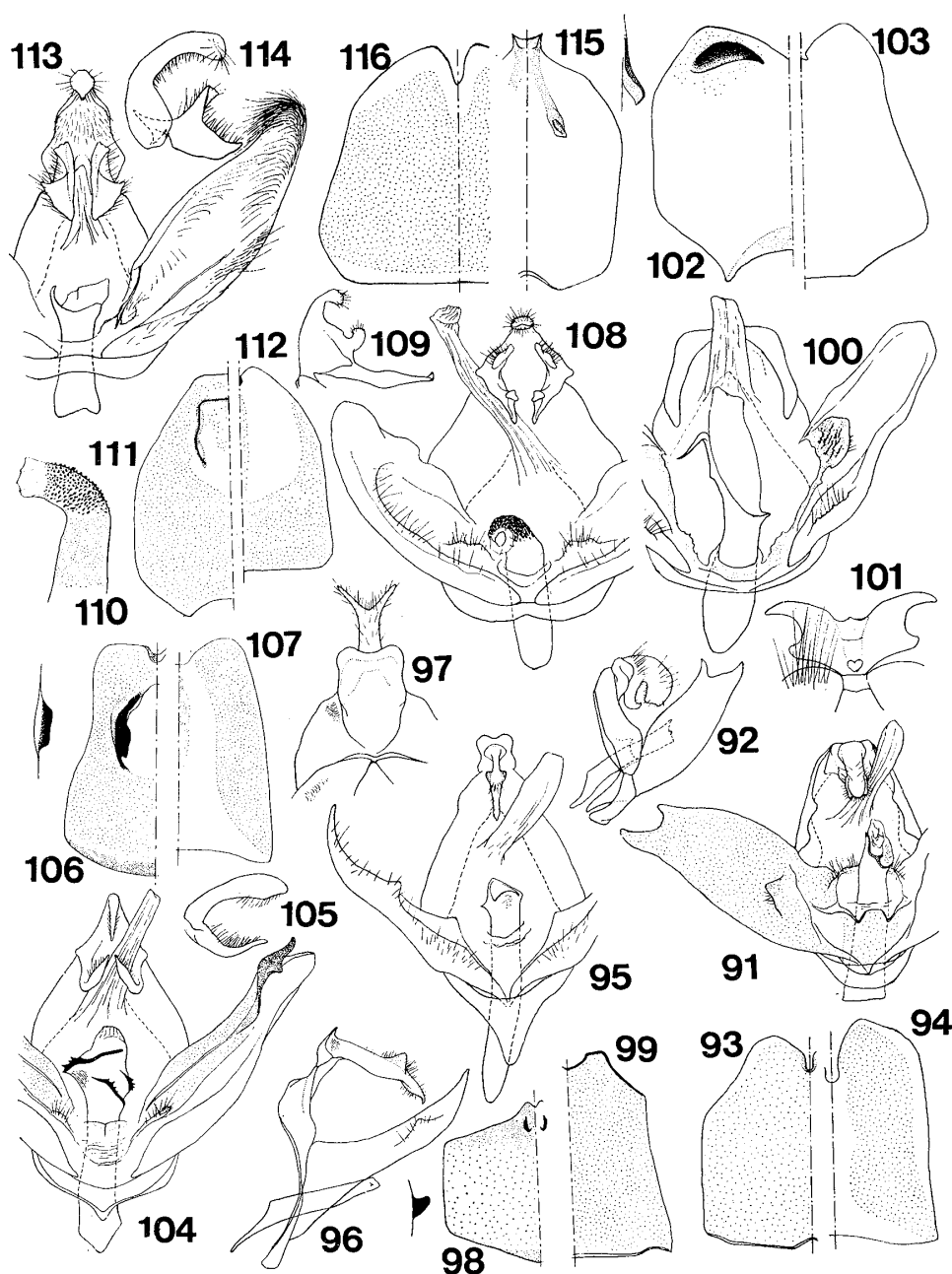
Figs. 26–30. *Stauropus* (*Mesostauropus*) *sikkimensis* Moore, ♂. genitalia: (26) lateral view, (27) ventral view, (28) dorsal view, (29) 8th abdominal sternite, front and lateral view, (30) 8th abdominal tergite. Figs. 31–36. *Rachia plumosa* Moore, ♂. genitalia: (31) caudal view, (32) uncus and socii, lateral view, (33) do, dorsal view, (34) aedoeagus, lateral view, (35) 8th abdominal sternite, front and lateral view, (36) 8th abdominal tergite. Figs. 37–41. *Allodonta* (*Kiriakoffia*) *longivitta* Gaede, ♂. genitalia: (37) caudal view, (38) lateral view, (39) uncus and socii, dorsal view, (40) 8th abdominal sternite, (41) 8th abdominal tergite. Figs. 42–46. *Suzukia* (*Suzukia*) *sikkima* Moore, ♂. genitalia: (42) caudal view, (43) lateral view, (44) valva, internal view, (45) 8th abdominal sternite, (46) 8th abdominal tergite. Figs. 47–48. *Peridea* (*Peridea*) *sikkima* Moore, ♂. genitalia: (47) 8th abdominal sternite, (48) 8th abdominal tergite. (sp: upper process of socii, su: under process of socii, vc: costal part of valvae, vs: saccular part of valvae.)



Figs. 49—52. *Acmeshachia albifascia* Moore, ♂. genitalia: (49) caudal view, (50) uncus and socius, lateral view, (51) 8th abdominal sternite, (52) 8th abdominal tergite. Figs. 53—55. *Acmeshachia albifascia* Moore, ♀. genitalia: (53) lateral view, (54) genital plate, (55) 8th abdominal sternite. Figs. 56—59. *Pseudofentonia* (*Pseudofentonia*) *argentifera* Moore, ♂. genitalia: (56) caudal view, (57) uncus and socius, lateral view, (58) 8th abdominal sternite, (59) 8th abdominal tergite. Figs. 60—65. *Viridifentonia plagiviridis* Moore, ♂. genitalia: (60) caudal view: (61) uncus and socii, dorsal view, (62) do, lateral view, (63) valva, internal view, (64) 8th abdominal sternite, (65) 8th abdominal tergite. Figs. 66—70. *Pseudonerice unidentata* Bryk, ♂. genitalia: (66) 8th abdominal sternite, (67) 8th abdominal tergite, (68) genitalia, caudal view, (69) uncus and socii, dorsal view, (70) do, lateral view.



Figs. 71—75. *Nepalia vesperalis* sp. nov., ♂. genitalia: (71) caudal view, (72) uncus and socii, dorsal view, (73) do, lateral view, (74) 8th abdominal sternite, (75) 8th abdominal tergite. Figs. 76—80. *Anthea servula* Drury, ♂. genitalia: (76) caudal view, (77) uncus and socii, lateral view, (78) valva, internal view, (79) 8th abdominal sternite, (80) 8th abdominal tergite. Figs. 81—85. *Phalera himalayana* sp. nov., ♂. genitalia: (81) caudal view, (82) uncus and socii, lateral view, (83) valva, internal view, (84) 8th abdominal sternite, (85) 8th abdominal tergite. Figs. 86—90. *Phalera alaya* sp. nov. ♂. genitalia: (86) caudal view, (87) uncus and socii, lateral view, (88) valva, internal view, (89) 8th abdominal sternite, (90) 8th abdominal tergite.



Figs. 91—94. *Ptilodon atrofusa* Hampson, ♂. genitalia: (91) caudal view, (92) do, lateral view, (93) 8th abdominal sternite, (94) 8th abdominal tergite. Figs. 95—99. *Ptilodontosia crenulata* Hampson, ♂. genitalia: (95) caudal view, (95) do, lateral view, (97) uncus, dorsal view, (98) 8th abdominal sternite, (99) 8th abdominal tergite. Figs. 100—103. *Spatalina ferruginosa* Moore, ♂. genitalia: (100) caudal view, (101) uncus, dorsal view, (102) 8th abdominal sternite, (103) 8th abdominal tergite. Figs. 104—107. *Cleapa latifascia* Walker, ♂. genitalia: (104) caudal view, (105) uncus and socius, lateral view, (106) 8th abdominal sternite, (107) 8th abdominal tergite. Figs. 108—112. *Biraia junctura* Moore, ♂. genitalia: (108) caudal view, (109) uncus and socius, lateral view, (110) apical portion of aedeagus, lateral view, (111) 8th abdominal sternite, (112) 8th abdominal tergite. Figs. 113—116. *Besaia* (*Besaia*) *tamurensis* sp. nov., ♂. genitalia: (113) caudal view, (114) uncus and socius, lateral view, (115) 8th abdominal sternite, (116) 8th abdominal tergite.